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(54) AUTOMATIC SPHYGMOMANOMETER WITH MEASURING FUNCTION OF PULSE WAVE PROPAGATION VELOCITY

(57) Abstract:

PROBLEM TO BE SOLVED: To improve the accuracy on measurement or purse wave propagation velocity as possible in an automatic sphygmomanometer with a measuring function of pulse wave propagation velocity for determining a blood pressure of an organism based on heart beat synchronized signal generated from the organism in process for varying the pressure of a cuff wound on part of the organism.

SOLUTION: After induced wave forms of an organism is detected by an electrocardiograph apparatus 70 through electrodes attached to the organism and cuff wave forms of the organism are detected by a pressure sensor 40, a time difference TDRP till

the down peak point of the pulse wave from R wave of the induced wave forms is determined by a time difference calculating means 82 and a propagation velocity VMI of cuff pulse wave is calculated by a propagation velocity calculating means 84 based on the time difference TDRP. Then, since the variation in the propagation velocity VM1 is judged to be lower than a given value by a variation decision means 86, a mean value of three pulses of the propagation velocity VM1 of cuff pulse wavesusccesively calculated, is decided to be a propagation velocity VM2 of the pulse wave propagating in artery of the organism by a propagation speed decision means 87.